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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,026	11/24/2003	Toshikazu Kobayashi	AD6547USCNT	4782

23906 7590 10/21/2005

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WILMINGTON, DE 19805

EXAMINER
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SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 10/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/721,026

Applicant(s)

KOBAYASHI, TOSHIKAZU

Examiner

Callie E. Shosho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 August 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4-8,10-15 and 18 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,4-8,10-15 and 18 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. All outstanding rejections except for those described below are overcome by applicant's amendment filed 8/9/05.

The new grounds of rejection as set forth below are necessitated by applicant's amendment and thus, the following action is final.

**Claim Rejections - 35 USC § 103**

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 4-5, 7-8, 10-12, 14-15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (U.S. 5,886,098) in view of Mukohyama et al. (U.S. 5,700,857).

Ueda et al. disclose antistatic composition comprising 60-97% thermoplastic resin such as polyolefin, polyamide, polyester, or polycarbonate that corresponds to presently claimed polymer (A), 3-40% of the composition comprising at least 97% polyetherester amide that corresponds to presently claimed (B) and at least 0.01% halide of alkali metal, i.e. Li, Na, or K, or alkaline earth metal, i.e. Mg or Ca, that corresponds to presently claimed C(ii), 0.2-20% compatibilizer that is organic polymer possessing sulfo or carboxyl groups corresponding to presently claimed C(i), and plasticizer corresponding to presently claimed (D). The composition has surface resistivity on the order of  $10^{10}$  -  $10^{11}$ . There is also disclosed molded article obtained from the composition (col.1, lines 14-15, col.2, lines 25 and 35-42, col.4, lines 48-53, col.5, lines

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7-19, col.6, lines 59-67, col.7, lines 31-53, col.8, lines 52-55, col.11, lines 22-32, col.12, line 19, col.15, lines 45-55, and Tables 7 and 10).

The difference between Ueda et al. and the present claimed invention is the requirement in the claims of specific type and amount of plasticizer.

Mukohyama, which is drawn to resin composition, disclose the use of 0.1-10% plasticizer identical to that presently claimed, such as polyethylene glycol di-2-ethyl hexoate, in order to maintain the mechanical characteristics of the composition and control crystallization rate and molding temperature of the composition (col.3, lines 17-50). Attention is drawn to col.2, lines 19-23 of Mukohyama which discloses that the composition contains polyester containing polyether, i.e. polyalkylene oxide, segments. It would have been obvious to one of ordinary skill in the art that such segment is intrinsically ion-conductive. Thus, it is clear that the plasticizer of Mukohyama is used in conjunction with polymers containing ion-conductive polyether segments and thus, the plasticizer of Mukohyama would intrinsically function as plasticizer for polyetherester amide.

In light of the motivation for using specific type and amount of plasticizer disclosed by Mukohyama as described above, it therefore would have been obvious to one of ordinary skill in the art to use such plasticizer in the antistatic composition of Ueda et al. in order to produce a composition with good mechanical properties and suitable crystallization rate and molding temperature, and thereby arrive at the claimed invention.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. in view of Mukohyama as applied to claims 1, 4-5, 7-8, 10-12, 14-15, and 18 above, and further in view of JP 01163252.

The difference between Ueda et al. in view of Mukohyama and the present claimed invention is the requirement in the claim of specific type of molded article.

Ueda et al. disclose that the antistatic composition is used in molded articles but there is no explicit disclosure that the molded article is a transfer medium-separating guide part for electrophotographic devices.

On the one hand, given the broad disclosure of antistatic molded articles by Ueda et al., it would have been obvious to one of ordinary skill in the art to use such molded article in any device which required antistatic properties including transfer medium-separating guide part for electrophotographic devices, and thereby arrive at the claimed invention.

On the other hand, JP 01163252 disclose that antistatic compositions comprising polymer such as polycarbonate and polyetherester amide are used in copiers and for parts of electric appliances and machines, which clearly encompasses transfer medium-separating guide part for electrophotographic devices.

In light of the disclosure of JP 01163252, it therefore would have been obvious to one of ordinary skill in the art that the antistatic composition of Ueda et al. can in fact function as transfer medium-separating guide part for electrophotographic devices, and thus, one of ordinary skill in the art would have arrived at the claimed invention.

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5. Claims 1, 4-5, 7-8, 10-15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (U.S. 5,886,098) in view of Mukohyama et al. (U.S. 5,700,857).

The rejection is adequately set forth in paragraph 11 of the office action mailed 3/9/05 and is incorporated here by reference.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. in view of Mukohyama as applied to claims 1, 4-5, 7-8, 10-15, and 18 above, and further in view of JP 01163252.

The rejection is adequately set forth in paragraph 12 of the office action mailed 3/9/05 and is incorporated here by reference.

### **Response to Arguments**

7. Applicant's arguments regarding Yamanaka et al. (U.S. 2003/0077432) have been fully considered but they are moot in view of the discontinuation of the use of this reference against the present claims.

8. Applicant's arguments filed 8/9/05 have been fully considered but they are not persuasive.

Specifically, applicant argues that there is no teaching or suggestion in Ueda et al. or Mukohyama et al. that would make it obvious to one of ordinary skill in the art to combine the plasticizer of Mukohyama et al. with the resin of Ueda et al. and obtain presently claimed resin composition having surface resistivity of  $10^7$  to  $10^{13}$  ohms.

However, it is noted that Ueda et al. disclose anti-static composition possessing surface resistivity of  $10^{10}$  to  $10^{11}$  ohms wherein the composition comprises thermoplastic resin, polyetherester amide, ion source, and plasticizer, however, there is no disclosure of specific type of plasticizer.

Mukohyama et al. disclose the use of plasticizer identical to that presently claimed. While it is agreed that Mukohyama et al. is drawn to flame resistant polyester composition, on the one hand, it is also noted that Mukohyama et al. disclose that the resin composition is used for producing parts in the electric/electronic field. It is well known that anti-static coatings are used to prevent build up of electric charges that can damage electrical equipment. Thus, the disclosure of Mukohyama et al. is relevant to the field of anti-static composition.

On the other hand, applicants' are reminded that according to MPEP 2141.01 (a), a reference may be relied on as a basis for rejection of an applicants' invention if it is "reasonably pertinent to the particular problem with which the inventor is concerned." A reasonably pertinent reference is further described as one which "even though it maybe in a different field of endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." Mukohyama et al. is, therefore, a reasonably pertinent reference, because it teaches that plasticizer identical to that presently claimed is used in conjunction with polymer containing ion-conductive polyether segments similar to presently claimed polyetherester amide and is used in composition comprising thermoplastic polymer and ion source as presently claimed in order to produce composition with good mechanical properties and suitable crystallization rate and molding temperature which is a function especially pertinent to the invention at hand.

With respect to the surface resistivity, it is noted that applicant's declaration filed 11/24/03 has been considered by the examiner, however, it is the examiner's position that the declaration is not persuasive. Specifically, the declaration establishes that composition of example 1 of Mukohyama et al. possesses surface resistivity outside the scope of the present claims, however, it is noted that Mukohyama et al. is not used for its teaching of surface resistivity. This is already disclosed by Ueda et al., Mukohyama et al. is only used for its teaching of specific plasticizer. While the declaration shows that the composition of example 1 of Mukohyama et al. possesses surface resistivity outside the scope of the present claims, the composition comprises amounts and types of ingredients which would effect the surface resistivity. That is, the calculated surface resistivity in the declaration is only for the specific composition of example 1 of Mukohyama et al. There is no evidence that the combination of composition of Ueda et al. that possess surface resistivity as presently claimed with the plasticizer of Mukohyama et al. would result in surface resistivity outside the scope of the present claims.

Applicant also argues that JP 0116352 is not a relevant reference against the present claims given that there is no motivation to choose presently claimed composition for use as a transfer medium separating guide.

It is noted that Ueda et al. broadly disclose that the anti-static composition is used in molded article, however, there is no explicit disclosure that the molded article is a transfer medium separating guide.



JP 01163252 disclose that antistatic compositions comprising polymer such as polycarbonate and polyetherester amide are used in copiers and for parts of electric appliances and machines, which clearly encompasses transfer medium-separating guide part for electrophotographic devices.

In light of the disclosure of JP 01163252, it therefore would have been obvious to one of ordinary skill in the art that the antistatic composition of Ueda et al. can in fact function as transfer medium-separating guide part for electrophotographic devices, and thus, one of ordinary skill in the art would have arrived at the claimed invention.

### **Conclusion**

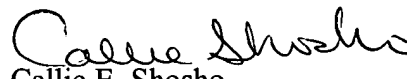
9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
10/15/05